

Doc Code: AP.PRE REQ

PTO/SB/33 (07-05)

Approved for use through xx/xx/200x.
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

I-2-0369.1US

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on 7/5/07

Signature [Signature]

Typed or printed C. Frederick Koenig, III
name _____

Application Number

10/626,165

Filed

July 24, 2003

First Named Inventor

Cave et al.

Art Unit

2617

Examiner

Dung Le Lam

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record. 29,662
Registration number _____

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

[Signature]

Signature

C. Frederick Koenig, III

Typed or printed name

215-568-6400

Telephone number

July 5, 2007

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below".

☐ *Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:

Cave et al.

Application No.: 10/626,165

Confirmation No.: 9718

Filed: July 24, 2003

For: MOBILE COMMUNICATIONS SYSTEM
AND METHOD FOR PROVIDING COMMON
CHANNEL COVERAGE USING
BEAMFORMING ANTENNAS

Group: 2617

Examiner: Dung Le Lam

Our File: I-2-0369.1US

Date: July 5, 2007

**ARGUMENTS ACCOMPANYING PRE-APPEAL BRIEF
REQUEST FOR REVIEW**

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

A Pre-Appeal Brief Review is hereby requested in the above-identified patent application for the following reasons:

The independent claims 1, 23 48 and 55 are directed to wireless communications which are initiated by a mobile unit transmitting an omnidirectional sounding pulse. For example, claim 1 specifies:

a method for establishing wireless communication comprising:

transmitting an omnidirectional sounding pulse from a wireless mobile unit ...;

communicating information related to the detected sounding pulse to [an] interface by each base station detecting the sounding pulse;
selecting a base station from among the base stations that detected the sounding pulse ...; and
directing a communication beam from the selected base station to the mobile unit to establish wireless communication.

The omnidirectional sounding pulse notifies base stations within a geographic area that the mobile unit is present and is seeking to establish a wireless communication. The omnidirectional sounding pulse is not transmitted over an existing wireless communication channel as it is used to establish a wireless communication to the mobile unit.

The term "sounding pulse" has meaning in the art. See, for example, Freeburg (U.S. Patent 5,095,535) cited by the Examiner in applicants' co-pending Application No. 10/667,633. As explained in par. [0020], "The sounding pulse, a radio frequency (RF) signal with or without intelligence, should not be confused with conventional mobile unit uplink channels." See also pars.[0072]-[0073].

The independent claims stand finally rejected as obvious over US Patent No. 5,267,261 (Blakeney) in view of US Patent No. 6,593,880 (Velazquez) and also as obvious over US Patent No. 5,396,541 (Farwell) in view of US Patent No. 5,054,035 (Tarallo). Blakeney and Farwell are respectively asserted to each teach or suggest the claimed establishment of a wireless communication by using an omnidirectional sounding pulse; both Blakeney and Farwell fail to do so.

The Examiner asserts that Blakeney's Pilot Strength Measurement Report Message, Col. 27, lns. 23-29, is the same as the claimed sounding pulse:

The mobile unit continues travelling through the system, such as by leaving the coverage area of base station A and entering the coverage area of base station B. As the mobile station travels further into the coverage area of base station B the mobile station searcher receiver measures a signal strength of the Active pilot of base station A which has fallen, block 216. As discussed previously, **when the pilot of base station A drops below the threshold T.sub.-- DROP for a period of time determined by the parameter T.sub.-- TDROP, the mobile station generates and transmits a corresponding Pilot Strength Measurement Report Message to both bases stations A and B, block 218. One or both of base stations A and B should receive the Pilot Strength Measurement Report Message and transfer it on to the MTSO, block 220.**

Blakeney's Pilot Strength Measurement Report (PSMR) Message is generated in connection with a "soft" handoff at a time when both base stations A and B already have an established connection. In Blakeney, the handoff procedures are such that the mobile unit temporarily maintains simultaneous wireless communications with a current base station and a destination base station for the handoff as explained at Col. 27, lns 7-12 and step 214:

The mobile station in response to this Handoff Direction Message begins to acquire the communications signals transmitted by base station B with diversity combining of the signals of base stations B and A, block 214. **The mobile station is thus communicating with the other user through both of base stations A and B.**

Blakeney's PSMR Message is generated at "step 18" after "step 14" when communications have already been established with both base stations A and B. Unlike the claimed omnidirectional sounding pulse that is used to establish a wireless communication, Blakeney's PSMR Message is used to determine when to

terminate the wireless communication between the mobile unit and base station A.

See Blakeney, Col., Ins. 29-47:

The MTSO in response to the Pilot Strength Measurement Report Message makes a decision that the pilot of base station A is to be removed from the mobile station Active list so as to terminate communications through base station A. ...

Clearly, Blakeney's PSMR Message is not "a sounding pulse" as claimed.

The Examiner asserts that Farwell's mobile unit's transmitted synchronization pattern is the same as the claimed sounding pulse; it is not. In Farwell, a mobile unit continuously transmits a synchronization pattern to establish synchronized communications with multiple base stations 102, 103, 104, see Figure 1 and col. 3, Ins. 33-60. Farwell, col. 3, ln 61 *et seq.* then teaches:

Base stations 102 through 104 then monitor the signal strength from mobile unit 105 for a predetermined amount of time and transfer this signal strength information back to system controller and switch 101.

...

For the present example, assume that base station 103 has the strongest signal. System controller and switch 101 then transmits an end handoff command to base station 103 commanding it to take over communication with mobile unit 105 via link 113 and transmits the end handoff command to base station 104. ... In response to the end handoff message, base station 103 **sends mobile unit 105 a stop handoff message which causes mobile unit 105 to stop transmitting the synchronization pattern** in hopping channel 0, ...

Farwell's synchronization pattern is not a sounding pulse. It is a continuous signal which is used to synchronize multiple base stations, after which signal strength is measured. The synchronization pattern continues until the end of Farwell's handover procedure. Transmitting such a continuous synchronization pattern does not teach or suggest the claimed sounding pulse.


Applicant: Cave et al.
Application No.: 10/626,165

In Farwell, the system controller 101 communicates messages to all of the relevant "inactive" base stations that a handoff may occur, see Farwell, step 503 Figure 5. This is the opposite of the claimed invention where the sounding pulse transmitted by the mobile unit is used to alert the base stations that the mobile unit wishes to establish a communication link.

The base station's of the present claims "detect" the sounding pulse and are not informed in advance of a mobile unit's desire to communicate by the network as in both Blakeney and Farwell. The claimed invention eliminates the need for the network to advise multiple base stations that the mobile unit wishes to establish communications. This function is performed by the claimed "sounding pulse" and is not performed nor suggested by Blakeney's PSMR Message or Farwell's synchronization pattern. Accordingly, the rejections of claims 1-56 should be withdrawn.

Respectfully submitted,

Cave et al.

By 
C. Frederick Koenig III
Registration No. 29,662

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103
Telephone: (215) 568-6400
Facsimile: (215) 568-6499
CFK/CRT/djw